

# INSTALLATION INSTRUCTIONS

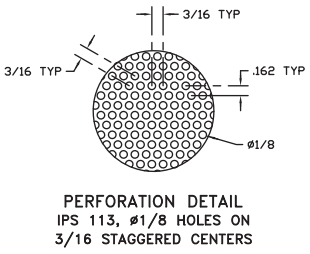
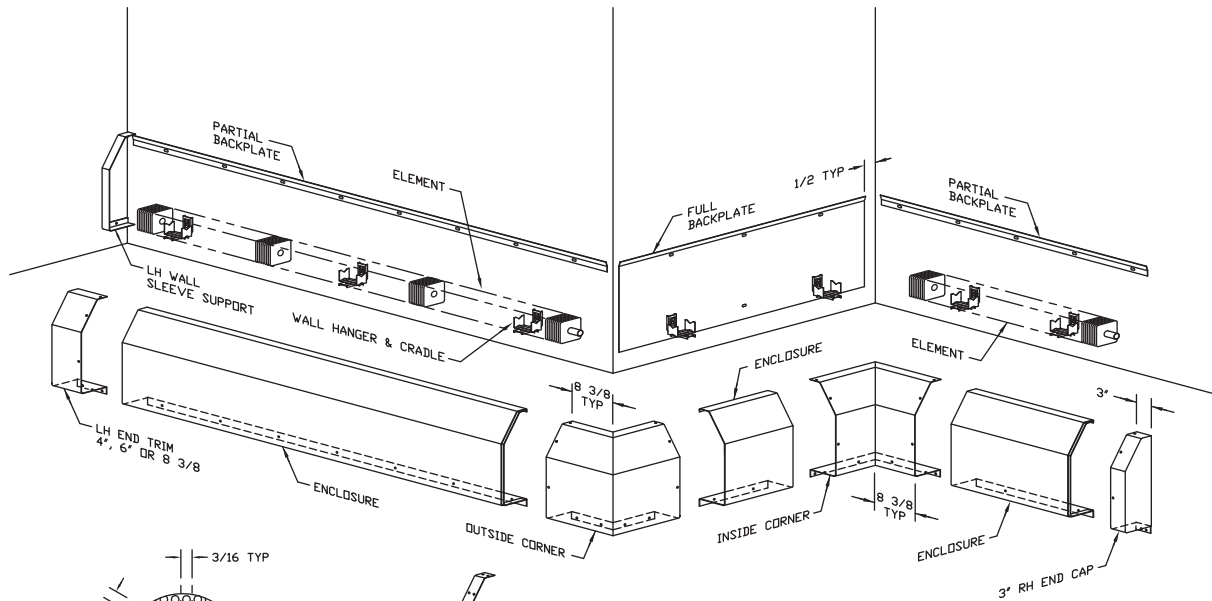
## GUARDIAN COMMERCIAL FINNED-TUBE RADIATION GSBS/GSBF

1. Determine quantities of enclosure and accessories required per wall or run. If installation is wall-to-wall, run backplate to within ½" of adjoining wall(s). If run ends with end cap, extend backplate beyond end of required enclosure 2" for 3" end and 7-1/2" for 8-3/8" end (depending on amount of required overlap).
2. Mount backplate (full or partial 2") to wall at prescribed height (Refer to Submittal Drawing) making sure it is straight and level. Pre-punched mounting slots are located down 1-3/8" (35mm) from the top of the backplate. Snap a chalk line for securing fasteners over the length of the required run of backplate. Secure the backplate to the mounting surface with security fasteners (by others) as specified at the pre-punched slots provided in the backplate. Make sure that the backplate (full height or partial 2") is plumb and level.
- 3A. Hot Water Systems: For circulated hot water installations, locate the dimension of the fastener securing the wall mounted element hanger from the supplied submittal drawing. This dimension is the lowest mounting position for the fastener used to secure the element support hanger to the wall for the element shown on the submittal drawing. Snap a chalk line on the wall at this dimension. Install the wall mounted element hangers at regular intervals (not less than 2' 6" (762 mm) apart and no more than 3' 0" (1 M)) along the run. Secure the brackets to wall using fasteners (as specified) by others. Supply/Return Pipe hangers (if required) can be mounted to the wall adjacent to the water bracket (every other one).
- 3B. Steam Systems (Two Pipe): For two pipe steam installations, locate the dimension of the fastener securing the wall mounted element support hanger from the supplied submittal drawing. This dimension will represent the lowest mounting position for the element support at the return end of the steam run. Snap a chalk line on the wall that will provide a rise of ½" (13 mm) rise over a twenty (20 foot (6 m) run. This is the standard acceptable rate of pitch for steam. Install the wall mounted element hangers at regular intervals (not less than 2' 6" (762 mm) apart and no more than 3' 0" (1 M)) along the run. The highest elevation of the element will be the supply end for the entering steam.
4. After making sure the backplate and brackets are mounted securely and tight to the mounting surface as defined on the mechanical and submittal drawings, locate finned tube element where identified on mechanical drawings. Place element slide cradle supports onto element where brackets are located on wall. Place element and element slide cradles onto the ball bearings in the bracket and make sweat connections (For steel element, use specified pipe dope or Teflon tape or rope for threaded connections to the required threaded fittings. In case of welded fittings, make sure that fittings fit steel element tube properly). **For copper tube elements, flush the loop or series with system water after soldering to neutralize the remaining flux material and prevent corrosive action and resulting pinhole leaks.** Once the elements are connected into the heating system, a standard pressure leak test should be conducted as specified by the Mechanical Engineer.
5. The enclosure can now be installed as indicated on the mechanical plans. Typically the enclosure run would go left to right, working clockwise. The enclosure top back bend mounts directly into the angle bend of the backplate. The bottom of the security enclosure extends back to wall and the vertical flange of the enclosure will rest against the wall. Use the pre-punched holes in the bottom flange for the fasteners (by others) to secure the enclosure to the wall. The adjoining enclosures will butt up against each other with one end resting on the male joiner.
6. Install required accessories where indicated on mechanical plans and room schedule provided. All Security accessories are overlapping. All accessories are installed with the top rear extending back to the wall. Security type, tamper-resistant fasteners as specified are to be used to secure the accessories in place. It is to be determined by the installing contractor if washers are to be used with the security fasteners being used to secure the accessories to the enclosure. The accessories return back to the wall at the bottom and are to be secured to the wall with the specified tamper-resistant fasteners (by others) using the pre-punched holes in the bottom vertical flange of the accessory.

### MAINTENANCE

Before each heating season, remove accessories and enclosure panel to inspect finned tube elements for accumulation of dust or other debris that may accumulate and block airflow between fins. Remove dust and debris from coil fins with a vacuum cleaner or compressed air. Inspect for leaks or areas of corrosion. It should not be required, but if necessary, place a drop of lubricant (machine oil) onto each ball bearing located in the element support brackets. Replace cover and accessories.

# GENERAL LAYOUT



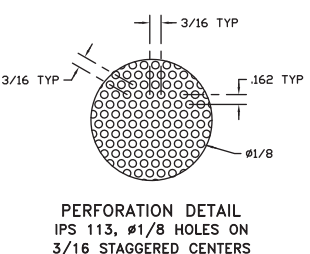
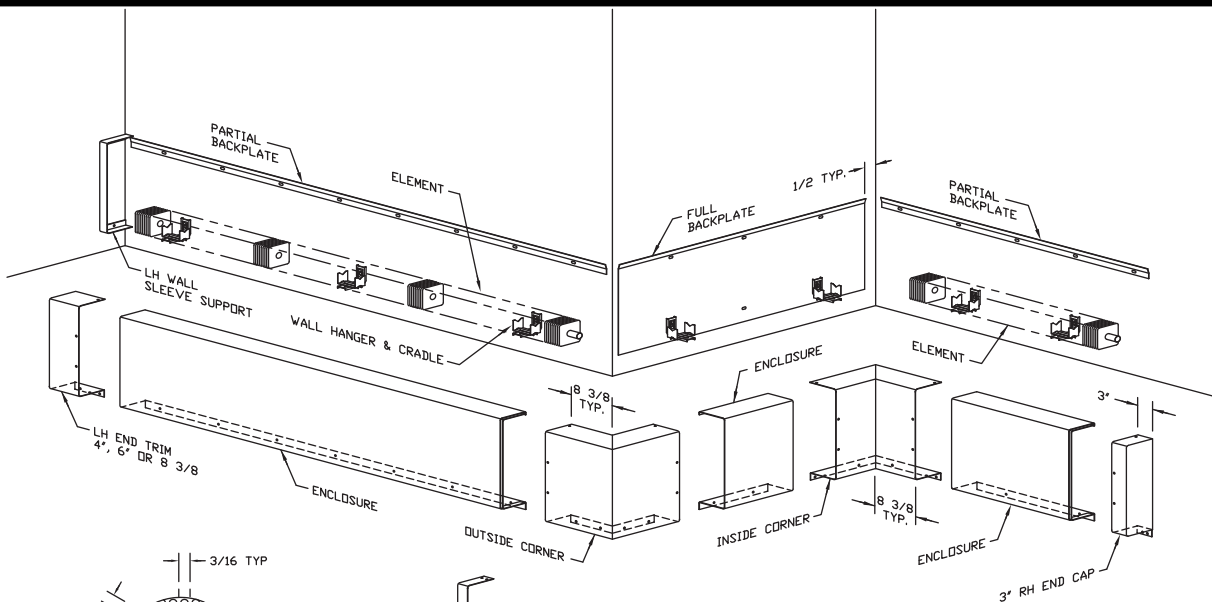
2" INTERMEDIATE JOINER PIECE USED WITH FULL PERFORATION ENCLOSURE AT ENCLOSURE JOINTS. IT'S USE IS OPTIONAL WITH PARTIAL PERFORATION ENCLOSURE.

**NOTES:**

1. ENCLOSURE SECTIONS AVAILABLE IN FOLLOWING STANDARD LENGTHS: 2' THRU 8' IN 6" INCREMENTS.
2. ACCESS DOORS ARE NOT RECOMMENDED IN PRISON INSTALLATIONS.
3. SECURITY TAMPER RESISTANT FASTENERS FOR SECURING ACCESSORIES TO ENCLOSURE CAN BE PROVIDED BY MANUFACTURER UPON REQUEST, #8 x 1/2 TORX PIN BUTTON HEAD STAINLESS STEEL WITH #8 STAINLESS STEEL WASHERS.

CAT-60844D

**SLOPE TOP SECURITY 12 & 18  
PARTIAL OR  
FULL PERFORATED**



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CAT-60845D

**FLAT TOP SECURITY 12 & 18  
PARTIAL OR  
FULL PERFORATED**